

Melanie J. Powers Fraites

Education

- B.S., Framingham State College, Framingham, MA; 1992.
- Ph.D., North Carolinas State University, 1999.
- Doctor of Philosophy in Medical Sciences, University of Florida College of Medicine, Gainesville, FL, December 2006.
- Bachelor of Science in Biology, Ithaca College, Ithaca, NY, May 2001.

Research Experience

- Postdoctoral Fellow, Dr. Ralph Cooper, United States Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Reproductive Toxicology Division, Endocrinology Branch (MD-72), Research Triangle Park, NC 27711, January 2007-present.
- Graduate Research Assistant, Department of Physiology and Functional Genomics, University of Florida, Gainesville, FL, April 2003 – December 2006.
- Graduate Research Assistant, Department of Cell Biology, Department of Cell Biology, University of Arizona, Tucson, AZ. August 2001 – June 2002
- Research Intern, Department of Physiology and Neuroscience, Summer Undergraduate Research Program, Sackler Institute of Graduate Biomedical Sciences, New York University School of Medicine, New York, NY, June 2000-August 2000.
- Undergraduate Research Assistant, Department of Biology, Ithaca College, Ithaca, NY, January 1998 – May 2001.

Grants and Awards

- Recipient, Medical Education Teaching Award, University of Florida, 2005.
- Grant Recipient, American Heart Association Predoctoral Fellowship, University of Florida, 2004.

Professional Activities

- Editorial Board: Biology of Reproduction.
- EPA Bronze Medal, for outstanding contributions to the Agency's Endocrine Disruptor Screening Program. 2004.

Invited Lectures/Symposia

- American Society of Andrology Annual Meeting, Symposium on Endocrine Issues in Male Reproductive Failure: Environmental anti-androgens: Altered development and function of the male reproductive tract. 2006.

- Interagency Coordinating Committee on the Validation of Alternative Methods
Endocrine Disruptor Expert Panel Public Meeting, NTP Interagency Center for
the Evaluation of Alternative Toxicological Methods, National Toxicology
Program, National Institute of Environmental Health Sciences, Research Triangle
Park, NC: Overview of ER and AR in vitro binding and transcriptional activation
assays. 2002

Publications: Research Reports

Powers, M.J. and Wood C.E. 2007. Ketamine inhibits ACTH responses to cerebral hypoperfusion. *Am J Physiol Regul Integr Comp Physiol*. 292(4):R1542-9.

Keller-Wood M., Powers M.J., Gersting J.A., Ali N., Wood C.E. 2006. Genomic analysis of neuroendocrine development of fetal brain-pituitary-adrenal axis in late gestation. *Physiol Genomics*. 24(3): 218-24.

Hardwick, J.C., Kotarski, A.F., Powers, M.J. 2006. Ionic mechanisms of histamine-induced responses in guinea pig intracardiac neurons. *Am J Physiol Regul Integr Comp Physiol* 290(1): R241-50.

Powers M.J., Peterson, B.A. and Hardwick, J.C. 2001. Regulation of parasympathetic neurons by mast cells and histamine in the guinea pig heart. *Autonomic Neuroscience: Basic and Clinical*. 87: 37-45.

Publications: Abstracts

Powers M.J., Wood C.E. 2006. Ketamine inhibits fetal reflex response to cerebral hypoperfusion. 2006 Experimental Biology meeting abstracts [on CD-ROM]. *The FASEB Journal*, 20, Abstract #753.5.

Powers M.J., Wood C.E. 2005. Genomics of the fetal response to cerebral hypoperfusion. Program No. 527.2. Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience. Online.

Powers, M.J., Wood C.E. 2004. Ontogeny of adrenocorticotropin releasing factors in the fetal ovine hypothalamus. Abstracts2View. New Orleans, LA: The Endocrine Society. Online.

Hardwick J.C., Corbett B.M., Dobson J.S., Powers M.J. 2003. Ionic mechanisms of histamine and prostaglandin modulation of guinea pig intracardiac neurons. Program No. 891.7. 2003 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience. Online.

Powers M.J., Peterson, B.A. and Hardwick, J.C. 2001. Regulation of parasympathetic neurons by mast cells and histamine in the guinea pig heart. *Society for Neuroscience Abstracts*. 26: 1953.

Teaching Experience

Guest Lecturer, "Conducting Research in a Government Agency," November 2007, for BIOL 205: Introduction to Biological Research. Department of Biological Sciences, Campbell University, Buies Creek, NC.

Teaching Assistant, DEN 5120C "Structure and Function of Body Systems," Spring 2006. Supervised by Dr. Louis Ritz, Associate Professor of Neuroscience, University of Florida.

Guest Lecturer, "Neuroendocrinology," January 2006, for BMS 6020: Medical Neuroscience. College of Medicine, University of Florida.

Teaching Assistant and Instructor, GMS 6705 "Fundamentals of Human Neuroanatomy," Summer semesters 2004 and 2005. Supervised by Dr. Louis Ritz, Associate Professor of Neuroscience, University of Florida.

Instructor, Student Science Training Program, "Take Heart: Introduction to Cardiovascular Physiology." Summer semester 2005. Supervised by Professor Mary Jo Koroly, Center for Precollegiate Education and Training Program, University of Florida.